

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P709021

Luminaire Tested: **24APR-67-160L850-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709021
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-67-160L850-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

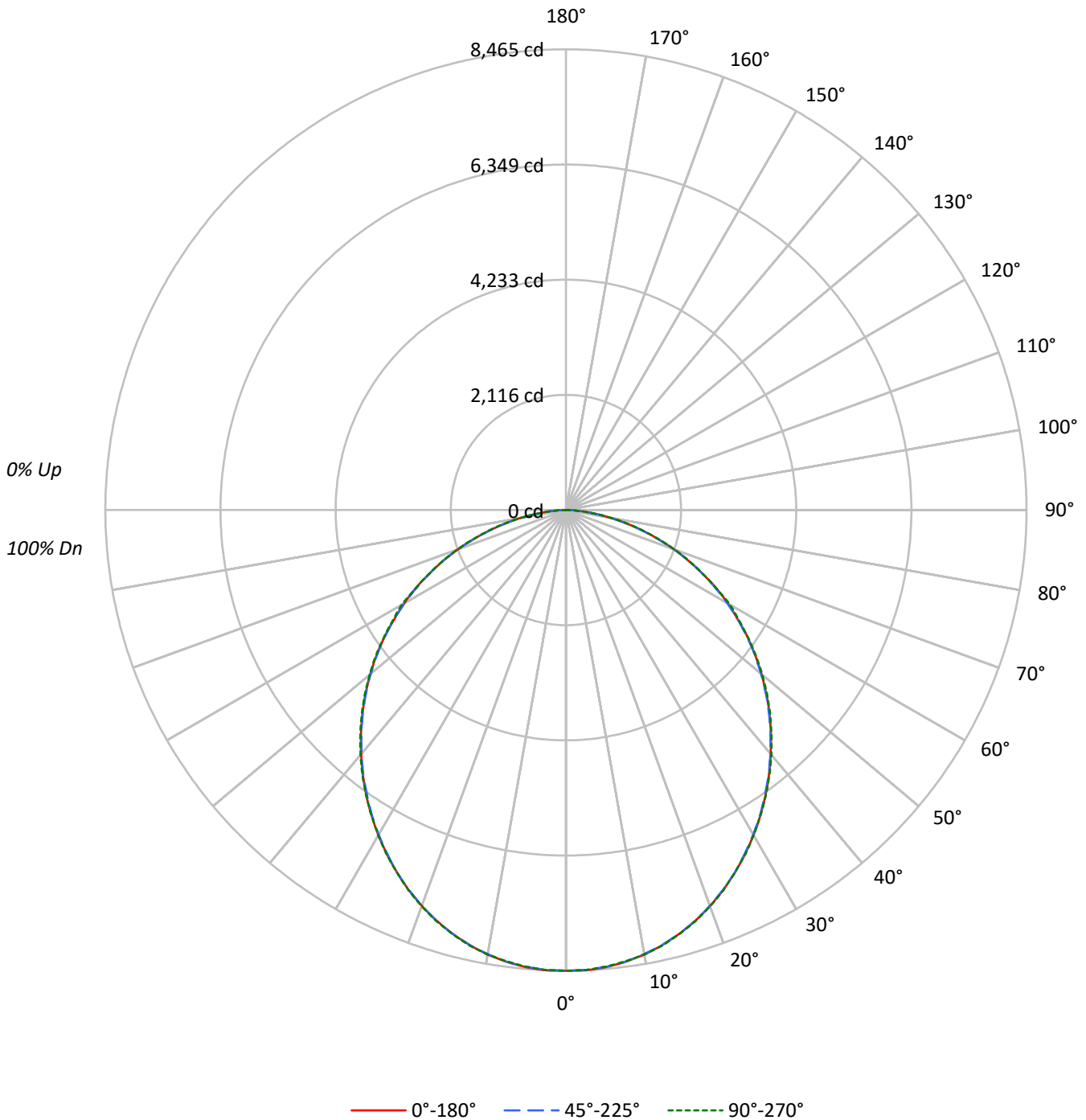
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22845.0 lumens
Efficiency: N/A
Efficacy: 125.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 181.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P709021
CATALOG NUMBER: 24APR-67-160L850-UNV

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	98	94	92	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	63	73	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11390	11390	11390
5°	11391	11380	11373
10°	11331	11321	11330
15°	11224	11224	11237
20°	11086	11079	11095
25°	10913	10908	10908
30°	10715	10699	10717
35°	10506	10478	10519
40°	10283	10263	10318
45°	10064	10043	10098
50°	9823	9798	9860
55°	9555	9530	9587
60°	9239	9217	9379
65°	8819	8821	8845
70°	8335	8290	8345
75°	7604	7545	7595
80°	6564	6482	6526
85°	5121	5071	5059



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	800.1	3.5
10°-20°	2272.2	9.9
20°-30°	3383.9	14.8
30°-40°	3997.9	17.5
40°-50°	4078.5	17.9
50°-60°	3639.1	15.9
60°-70°	2743.6	12.0
70°-80°	1538.3	6.7
80°-90°	391.4	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	6456.2	28.3
0°-40°	10454.1	45.8
0°-60°	18171.7	79.5
0°-90°	22845.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	22845.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8465	8465	8465	8465	8465	
5°	8434	8430	8426	8427	8421	800
15°	8058	8053	8058	8064	8067	2272
25°	7351	7342	7347	7354	7347	3385
35°	6396	6387	6379	6398	6404	4001
45°	5289	5286	5278	5294	5307	4079
55°	4073	4064	4063	4075	4087	3638
65°	2770	2756	2771	2779	2778	2748
75°	1463	1438	1451	1443	1461	1548
85°	332	320	328	328	328	397
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8465.3	8465.3	8465.3	8465.3	8465.3
2.5°	8465.3	8461.3	8458.0	8457.2	8458.8
5°	8433.6	8429.6	8425.5	8427.1	8420.6
7.5°	8372.7	8373.5	8370.2	8371.0	8363.7
10°	8293.8	8289.7	8286.5	8293.8	8293.0
12.5°	8187.3	8180.0	8183.2	8194.6	8195.4
15°	8058.0	8053.1	8058.0	8063.7	8067.0
17.5°	7910.9	7906.8	7912.5	7913.3	7919.8
20°	7742.6	7737.7	7737.7	7745.8	7749.1
22.5°	7556.4	7549.1	7550.7	7556.4	7560.4
25°	7350.7	7341.7	7347.4	7353.9	7347.4
27.5°	7128.7	7123.8	7118.1	7126.3	7136.8
30°	6897.0	6887.2	6886.4	6892.1	6897.8
32.5°	6652.3	6640.9	6640.9	6648.2	6653.1
35°	6396.2	6387.2	6379.1	6397.8	6404.3
37.5°	6131.9	6121.4	6120.5	6131.9	6142.5
40°	5854.7	5845.7	5843.3	5862.8	5874.2
42.5°	5575.0	5569.3	5563.6	5583.1	5592.1
45°	5288.8	5285.6	5278.2	5293.7	5306.7
47.5°	4994.5	4983.9	4981.5	4999.4	5012.4
50°	4692.9	4688.8	4680.7	4696.9	4710.7
52.5°	4387.2	4382.3	4376.6	4391.2	4405.9
55°	4073.3	4064.4	4062.8	4074.9	4087.1
57.5°	3746.5	3739.2	3750.5	3761.9	3771.7
60°	3433.5	3416.4	3425.3	3438.3	3485.5
62.5°	3118.8	3088.7	3095.2	3131.0	3110.7
65°	2770.0	2756.2	2770.8	2779.0	2778.2
67.5°	2443.2	2426.9	2448.9	2442.4	2452.1
70°	2118.8	2090.3	2107.4	2109.8	2121.2
72.5°	1783.8	1759.4	1774.0	1781.4	1788.7
75°	1462.7	1437.5	1451.3	1443.1	1461.0
77.5°	1143.1	1127.7	1136.6	1142.3	1156.1
80°	847.2	830.1	836.6	837.4	842.3
82.5°	574.0	561.0	562.6	577.3	571.6
85°	331.7	319.5	328.5	327.7	327.7
87.5°	129.3	119.5	128.5	127.6	126.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)